Role of ultrasonography in malaria pregnancy

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Background: Malaria acquired during pregnancy is one of the major causes of poor maternal and birth outcomes in tropical areas endemic for this disease. Malaria during pregnancy induces deterioration of placental function, resulting in transient fetal hypoxia and can induces grouth restriction. Ultrassound assessment of intrauterine growth, fetal and Placental abnormalities is often used as a important clinical tool to identify these patological findings.

Methods: Fetal biometric mesurements, placental and amniotic fluid evaluation were obtained and thereafter at 4 week intervals from pregnant women enrolled in a longitudinal study.

The study population comprised 162 singleton gestations with ultrasound derived gestational age in the first trimester. Estimated fetal biometric parameters and weight were calculated at each ultrasound examination using the Hadlock algorithm. Placental thickness were estimated using Lubschenco data and amniotic fluid was avaliated based in Phelan study.

Were included on these study pregnant womens with any Malaria infection in treatment.

Were excluded of thete study pregnant womens without treatment, with any patology that can afect fetal growth, and multiple gestations.

Results: Fetal growth restriction occured in 7 patients (4%). Placental thickness was increased in 4 patients (2,4%) and decreased in 1(1,2%), 3 pacients had oligodramnious. 1 fetus (1,2%) had bilateral cleft lip detected by ultrasound scan.

Conclusion: These datas are against the normal populations datas were the incidence of fetal growth restriction is 3% and fetus malformation 1-2%. This study shows that in a well treated population, the fetal growth can be the same as the population without Malaria. The ultrasonograophy is a good method of fetal, placenta and amniotic fluid evaluation and should be used to folow patologic pregnancy.

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Treatment failure of Artemether-lumefantrine in Falciparum Malaria in Brazilian Amazon area

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Background: According to Pan-American Health Organization (PAHO) around 11 million of Brazilians live in regions under moderate risk of malaria transmission and 1.5 million under high risk. The Ministry of Health in Brazil registered 314,678 malaria cases (Pf: 46,093, Pv: 265,530, Pf + Pv: 2,975, P.m: 78, Po: 2) all over the country in 2008, 99.5% of them in Amazonian area. Para state was responsible for 69,212 cases in 2008 (Pf: 10,746, Pv: 57,686, Pv + Pf: 753, P.m: 27) Artemisinin combination therapies have been establish as first choice treatment for falciparum malaria as an effective public health of Brazilian Ministry of Health since 2008.

Methods: Descriptive study. The goal of this study is to describe the epidemiological and clinical profile of treatment failure of Artemether-lumefantrine in two cases of Falciparum Malaria in Santarem, Para state, Brazil in 2009. Cases were admitted at the Municipal Hospital of Santarem, case records were retrospectively reviewed.

Results: Case 1: male, 52 years old, gold miner worker in Para state, admitted in August, 2009 with symptoms of fever, headache, nausea, vomit and fatigue. Clinical manifestation as anemia and painful hepatomegaly was observed. Peripheral blood smear was positive for malaria *P. falciparum* and *P. vivax*. Patient received specific treatment with Artemetherlumefantrine and primaquine with no side effects and clinical improvement. The cure control blood smear on day 3 was negative. On day 12 microscopy revealed *P. falciparum* parasitemia.

Case 2: male, 43 years old, gold miner worker in Para state, admitted in October, 2009 with symptoms of fever, headache, malaise and fatigue. Clinical manifestation as mucocutaneous pallor and hepatomegaly was observed. Peripheral blood smear was positive for malaria *P. falciparum* (8,000 trophozoito/mm+). Patient received specific treatment with Artemetherlumefantrine with no side effects and clinical improvement. Seventeen days after the malaria diagnosis re-started symptoms of fever, headache and diarrhea, peripheral blood smear was positive for *P. falciparum* (9,000 trophozoito/mm+). Both cases were successfully re treated with fixed combination of artemether-lumefantrine.

Conclusion: Treatment failure with artemisinin combination therapies has been sporadically reported. Further studies are necessary to investigated artemisinin resistance.

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